



**NGA**  
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

# EXPLORE NGA

## RESEARCH & DEVELOPMENT CAREERS



### RESEARCH DESIGNED FOR MISSION

The National Geospatial-Intelligence Agency (NGA) is a U.S. intelligence and combat support agency that provides policymakers, warfighters, intelligence professionals and first responders key information and insights. Through advanced Research and Development, or R&D, a career with NGA Research helps protect our nation and our world.

SEE YOURSELF IN NGA RESEARCH? **APPLY AT** [intelligencecareers.gov/nga](https://intelligencecareers.gov/nga)



NGA.mil

# RESEARCH OPPORTUNITIES

## Research and Development Occupation

Our intelligence officers use the scientific method to conduct, lead, and manage GEOINT R&D programs that use breakthrough technologies to support the national security mission and attack real-world problems with expertise, innovation, and creativity.

- **R&D Scientist**
- **Science and Technology Programmatic Officer**

## Scientific Focus Areas



**FOUNDATION** – Advances capabilities and disruptive technologies to observe, extract, represent, and attribute natural and manmade features, terrain, and bathymetry to characterize the earth and its populations.



**GEOPHYSICS** – Employs physics and mathematics to improve knowledge of the geospatial-temporal representations of physical and geometric characteristics of the Earth's surface, subsurface, and geospace.



**GEOSPATIAL CYBER** – Conducts research to derive meaningful intelligence from geospatial information associated with data in cyberspace.



**IMAGE AND VIDEO** – Researches data science, computer vision and information and retrieval techniques for content analysis and heterogeneous data processing; employs rigorous testing and evaluation for optimal alignment of data, technology and tradecraft.



**PREDICTIVE ANALYTICS** – Encompasses techniques from data mining, predictive modeling, and machine learning to analyze current and historical facts and make predictions about future or other unknown events.



**RADAR** – Exploits unique phenomenologies, explores innovative collection methods, and develops robust automation algorithms to improve intelligence in denied areas under all-weather, day-night conditions.



**SPACE** – Develops and applies emerging technologies to assure persistent and reliable GEOINT can be delivered by assets in space.



**SPECTRAL SCIENCE** – Enriches GEOINT by developing and transitioning capabilities for the extraction of intelligence content from spectral imagery sources.

## TO QUALIFY

Relevant degrees may include: artificial intelligence, computational/computer science, computer vision, data science, electrical engineering, machine learning, physics, remote sensing, spectral science or other related area of study.

Relevant experience may include: 24 semester (36 quarter) hours in science, mathematics and/or a related engineering science such as astronomy, cartography, chemistry, computer science, dynamics, electrical engineering, geodesy, geography, geology, geophysics, geospatial information systems, mathematics, orbital mechanics, photogrammetry, physics, remote sensing or surveying.

## KEY COMPETENCIES

Key competencies may include, but are not limited to: data analysis, engineering, quantitative and qualitative modeling, scientific method, project management, strategic planning, technical communication and technology evaluation.

Relevant experience in a closely-related area may be considered in lieu of a relevant degree.

Approved for Public Release # 20-667

SEE YOURSELF IN NGA RESEARCH? **APPLY AT** [intelligencecareers.gov/nga](https://intelligencecareers.gov/nga)

